DOD Executive Agency for LLRW

Volume 9, Issue 4

November 1999

the RAD WASTE NEWS

Inside this issue:

Special points of interest:

- Be sure to read the excerpts of the new GAO Report on LLRW which speaks to the future of the Compact System at page 3
- The Tenth Annual DOD LLRW Generators Meeting is scheduled for 7-8 March 2000—check out the preliminary information at page 5

How to SELECT a CONSOLIDATION AREA FOR EXCESSED RADIOACTIVE MATERIAL by Kelly Crooks

We are in the process of re-writing Technical Manual 3-261, *Handling and Disposal of Unwanted Radioactive Material,* and thought it might be helpful to generators of excessed radioactive materials to put out information as we go along. So, this is the first in a series in giving guidelines to follow in collecting and consolidating those materials in preparation for removal off-post.

AREA. Pick site according to installation needs for location, security and size.

SITE SELECTION. Guidelines for selection of a consolidation site:

a. Security must ensure no unauthorized entry.

b. Minimize the risk of fire, explosion or flood.

c. Consolidate only radioactive materials in the designated area.

d. Ventilate the area especially if storing tritium or radium.

e. Have personnel decontamination facilities available.

f. Isolate the area from other activities of the installation to help minimize personnel exposure.

g. Have smooth surfaces on walls floors, shelves; seal floors if storing liquids; etc., this will help in the safe, economical and rapid decontamination of the area if necessary.

h. Drain water from the storage area away from domestic water sup-

(Continued on page 4)

"*ARRR*MY TRAINING, SIR!!" by Derek Cornette

The technical-transportation of hazardous material!!?? Not me!!! Well, it could be you. A colleague and I just attended this course. The U.S. Army Defense Ammunition Center offers Technical Transportation of Hazardous Materials out of Ft. Hood. Two weeks of training in the garden spot of Texas, Killeen. Living in Iowa now, I was concerned because two Iowan's were murdered and their bodies burned in Killeen last year. I was hoping it was not something personal between Killeen and Iowa.

The course is required for anyone who certifies shipments of hazardous material for the government. You would be surprised at what is hazardous material. (Lighters for cigars/cigarettes, engines, internal combustion, fish meal, matches, medicines) Therefore, if you certify any of these items or thousands like

(Continued on page 7)

From the Desk of the Chief

Thank you all for helping us make FY99 a truly successful year!

As I write this, we haven't compiled all the metrics yet but it was a good year for business. Let me share a couple of highlights and some not so high lights.

First a not so high light -- in early September, we said farewell to Mr. Richard Holthouser , a radiation Project Management Specialist, from the Army program. He took an early retirement. Rick did many of our Level Two runs. By this, I mean that he did much of the packaging and brokering for instruments and articles for DOD. We look forward to soon filling the two vacancies that exist on our Operations Team to again get us full strength.

Now for some highlights --

This past spring, we received the final Army Audit Agency (AAA) Report on our program. The good news is that the core program is fiscally sound and well managed. However, one issue is a significant finding. The AAA pointed out that we cannot plan for future years because we do not know what unwanted radioactive material does or will exist. We agreed that future planning is difficult because we only know requirements as we receive them from our generators. We just awarded Phase 1 of a contract that will determine a methodology for assessing the low-level radioactive commodities and contaminated sites. This is the first step in a determining future requirements. This action will help resolve the AAA Finding and help our generators and us plan LLRW disposal actions better in the future.

The tritium recycle initiative with Lawrence Livermore National Laboratories is fully operational. Through August of this fiscal year, they recycled 44,038 curies of tritium. Kelly Crooks in our office was the moving force behind this initiative. We plan to continue looking for safe and cost effective alternatives to burial for unwanted radioactive material.

We successfully briefed Ms. Sherri Wasserman Goodman, the Deputy Under Secretary of Defense for Environmental Security on our program in July. The DOD Executive Agency for Low Level Radioactive Waste is just one of many Executive Agencies within the Department of Defense under Ms. Goodman's purview. We are very small but perform a vital function for the DOD – and our program is acknowledged as a model for other successful executive agencies. The cooperation and goodwill between the services is one reason that this program can maintain its success. The Executive Agent, Mr. Ray Fatz, Deputy Assistant Secretary for Environment, Safety and Occupational Health, and Ms. Wasserman Goodman remain convinced that our program demonstrates that executive agencies do work and that by avoiding parochialism can provide great opportunities for savings to the Department of Defense and the taxpayers.

The final tally is not in yet, but we again shipped unwanted DOD radioactive material from most states including Alaska and Hawaii. We also conducted a successful Far East run to Korea, Japan, and Okinawa. Finally, before we turn over the military portion of the Panama Canal Zone, we shipped their remaining unwanted radioactive material back to the United States.

What are my New Year's resolutions and goals?

- **Renewed dedication to providing world class customer service**
- **Another successful Generator's Conference next March.**
- **Sometime next spring, shipping waste from Europe.**
- **A signed implementing DOD Regulation for our executive agency.**
- **Another successful briefing to the Deputy Undersecretary of**
- **Defense.**
- **Even better cooperation between the services.**
- **More 8a contractors and capabilities.**
- **A full technical staff.**
- **And to see all the staff at one place and at one time at least once next year!**

We are looking forward to FY2000 being a great year for the executive agency and all our other service partners.

ROSALENE GRAHAM

Ms. Wasserman Goodman, DUSD (ES) remains convinced that our program demonstrates that executive agencies do work and that by avoiding parochialism, can provide great opportunities for savings to DOD and the taxpayers.

GAO Releases Report on Low-Level Radioactive Waste

(*Note: We would like to thank Afton Associates and the LLW Forum, and Cynthia Norris for permission to reprint their excerpts from this potentially important report. We feel that the LLW Forum remains a valuable resource for government and commercial organizations, and appreciate the opportunity to reprint this article. Ed.)*

On September 24, the U.S. General Accounting Office (GAO) released to the public a report reviewing the status of commercial low-level radioactive waste management by states and compacts. The report, entitled *Low-Level Radioactive Wastes: States Are Not Developing Disposal Facilities,* **was prepared at the request of Senator Frank Murkowski (R-AK), who Chairs the Senate Committee on Energy and Natural Resources.**

While the report does not recommend any changes to the current waste management system, it does contain a chapter entitled "Future Access Concerns Raise Questions About the Appropriate Approach for Managing Wastes." This chapter analyzes three options available to Congress:

-- retaining the compact approach,
-- repealing the compact legislation, and
-- making DOE responsible for disposal of commercial low-level radioactive waste.

Excerpts from GAO[1]s discussion of each of these approaches follow.

Retain the Compact Approach

"Compact advocates emphasize the degree of control that states exercise over low-level radioactive waste issues and the flexibility that the compact legislation provides for responding to changing circumstances. For example, compacts are free to regulate the import and/or export of low-level radioactive wastes within their region for treatment, storage, or disposal and to realign themselves as circumstances, such as the declining volume of wastes, may warrant, supporters of this approach point out, the compact system does not preclude private development of new disposal facilities."

"However, after collectively spending about $600 million, not one of the compacts has successfully developed a new disposal facility for low-level radioactive wastes. This history, coupled with the declining volume of wastes, raises questions about whether compacts could economically provide new disposal facilities in the absence of some merging and/or realignment of compacts. Others, on the other hand, point out that pending legal action against designated host states that have not developed new disposal facilities may prove, in the long run, the best means to ensure that these states discharge their responsibilities under the compact acts."

Repeal the Compact Legislation

"This approach would remove some of the direct control that the compact approach provides states over the process of developing and operating disposal facilities for low-level radioactive wastes. Successfully implementing this approach, however, would still depend, to a large extent, on the willingness of prospective host states to accept these facilities."

"Abolishing the compacts would result in a single national market open to commercial disposal firms. Moreover, the market for disposal services would be larger when considering DOE's estimated need for disposal services. In this regard, the recent initiatives by Waste Control Specialists, Envirocare, and Safety-Kleen in developing licensed facilities for disposing of low-level radioactive wastes demonstrate commercial interest in the combined commercial and DOE markets for disposal services.

"This approach, however, appears to risk the early loss of existing disposal capacity before replacement disposal capacity comes on line. For example, the state of Washington supports the compact approach and has stated that it probably would close the Richland facility if it lost the right to exclude out-of-region wastes provided by the compact legislation. Also, South Carolina, which now wants to exercise greater control over the Barnwell facility's disposal operations, could take similar action regarding that facility.

"Finally, if states' roles in developing new disposal facilities are limited to licensing and regulating new facilities proposed by private companies, states dissatisfied with this more limited role might

(Continued on page 7)

BEST VALUE CONTRACTING by Mike Styvaert

The Executive Agency recently conducted two simultaneous competitive solicitations using best value contracting. The two efforts were the decommissioning of an indoor depleted uranium test range at Picatinny Arsenal and the decommissioning of an outdoor depleted uranium hard target range at Aberdeen Proving Ground. For both projects, radiological characterization data existed describing the affected areas. Our Request for Proposal called for firm fixed price proposals for a turnkey (including waste disposal) decommissioning of the sites.

We choose a best value approach to select the contractor with the best combination of cost, technical approach and past performance. We came up with weighting factors for each evaluation criteria. An offeror's cost was 50 percent of their score, while past performance and technical approach were each 25-percent of the total.

We scored past performance based on each contractor's experience with the Department of Defense, decommissioning contracts in general and references from past clients. We developed a customer survey form that we sent to each contractor's past client list.

For technical merit we identified several essential technical points during the Bidders Conference and in the Request for Proposal. Technical areas in the scoring system included the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) process, the Nuclear Regulatory Commission (NRC) dose-based release criteria, field and laboratory instrumentation, Occupational Safety and Health Administration standards, control of effluent releases, and waste disposal, packaging, profiling and transportation.

For the cost portion, we assigned the lowest, technically acceptable proposal the maximum score of 50 points. We then assigned points to each of the other technically acceptable proposals based on the ratio of their cost to the low cost.

Overall, the process worked very well. We were somewhat surprised at the average overall technical scores. Each of the submittals came from IOC-qualified, technically competent decommissioning contractors. However, several proposals did not address the specific technical provisions we identified as evaluation requirements. The vast majority of submittals scored very well on the past performance portion. We saw a wide range in terms of cost and technical approach for both efforts. The ratio of the highest cost to the lowest cost was 4.3 for Picatinny and 2.5 for Aberdeen.

We will use the best value approach for future efforts. Our advice to prospective bidders is to pay very close attention to the evaluation criteria and address each area in the technical portion of the proposal.

In future issues we will explain the Qualified Bidder's List (QBL), how a contractor can qualify and how the QBL process works.

"We choose a best value approach to select the contractor with the best combination of cost, technical approach and past performance."

(**Consolidation Areas** *continued from page 1)*
plies (surface and subsurface sources).

i. As able, do not put site in an area subject to inclement weather.

j. Area should be free of animals, such as rodents, which can gnaw into storage containers or track radioactive contamination out of the storage area.

We realize all of these guidelines may not apply to your particular situation. When selecting your consolidation area, please use the pertinent guidelines.

DODRAD 2000

The DOD Executive Agency for Low-Level Radioactive Waste will host DODRAD 2000, the tenth annual Waste Generators Meeting in Williamsburg, VA, March 7 and 8, 2000. The objective of the meeting is to give attendees the opportunity to meet and hear from management personnel responsible for the Department of Defense (DOD) Radioactive Waste Disposal Program and give you information on a variety of radioactive waste issues. The theme for this tenth anniversary meeting will be the "The Future is Now". The agenda will focus on the changes affecting current and new disposal site availability, disposal costs, new technologies for waste management, radioactive materials in the public sector and other national issues. We will feature again a panel of state and compact representatives to discuss the national low-level disposal facility siting situation. This is one of our most popular agenda topics, and amazingly enough one that never ceases to change year after year.

We will be back in the Virginia next year and we hope those of you that are in the Washington, DC area that haven't attended our meeting recently will make an effort to come. We think that we have improved the meeting considerably since the last time we met in Norfolk in 1997. There will be a limited amount of display/exhibit space available. The available space filled up fast last year so we are encouraging exhibitors to sign up early. We are again soliciting technical presentations from the industry. Technical presentations must be applicable to DOD generated waste streams and processing requirements, and will be selected on a first come basis - these agenda time slots are extremely limited and require an abstract NLT 1 January, 2000. We will furnish more detailed information regarding submission of abstracts via the Commerce Business Daily and in the next issue of the newsletter. In the mean time, direct inquiries and questions to conference chairman, Mr. Rich Conley, (309) 782-0171, fax (309) 782-2988, email: conleyr@ioc.army.mil.

The theme for this tenth anniversary meeting will the "The Future is Now". The agenda will focus on the changes affecting current and new disposal site availability, disposal costs, new technologies for waste management, and other national issues.

Do I need to (or am I allowed to) placard that truck carrying radioactive material? By dave horton

This article covers the basics of when DOT requires and when it allows placarding. Recently, we had a problem with the Department of Transportation (DOT) regulations. DOT required us to placard a truck and we did not . I contacted various installations to question when we should placard a truck.

When we ship radioactive material "down the highway" in the United States of America, the DOT regulations tell use how to do it. The DOT has these regulations spelled out in Title 49 Code of Federal Regulations, or 49 CFR.

One of the first things we look at when shipping radioactive material is whether the material meets the DOT definition of radioactive material. This definition is in 49 CFR 173.403. It states that "*Radioactive material means any material having a specific activity greater than 70 Bq per gram (0.002 microcuries per gram).***" Sometimes we make use of this definition when shipping bulk quantities of remediation waste that has a relatively small specific activity. Often the specific activity (or activity per gram) does not meet the DOT definition of radioactive material. In this case, the shipping name that we use may be something like "US DOT Exempt Material Soil." DOT regulations would not require us to placard this shipment since according to DOT regulations, it is not radioactive.**

In other cases, we may have a drum of waste that is radioactive under DOT regulations and still not need to placard the transport vehicle. Table 1 in 49 CFR 172.504 governs when a placard is required. If the container has a Radioactive Yellow III label, then we must placard the transport vehicle. Additionally, we must placard the vehicle "for exclusive use shipments of low specific activity material and surface contaminated objects transported in accordance with § 173.427(b)(3) or (c)" of 49 CFR.

Okay, so now we have covered when we must placard the transport vehicle. How about - when are we "allowed" to placard a transport vehicle? Under 49 CFR 172.502, there is a section that covers what is called *permissive placarding.* **Essentially this section says that, as long as you have radioactive material you may placard the transport vehicle even if it is not required. As an example of this, if you had a load of 20 drums, all labeled with a Yellow II label, DOT would not require us to placard the transport vehicle. However, this section of the DOT regulations would allow us to placard the vehicle. Note: Even if we are using permissive placarding for a truck, we are required to follow the general requirements of 49 CFR 172.504 and affix placards on each side and each end of the truck.**

If you have any questions on this subject, you can contact David Horton at (309) 782-1759, DSN 793-1759, or HortonD@ioc.army.mil.

Unwanted Radioactive Material, What Do YOU Do? By Judy Woodson

So you have unwanted radioactive material what do you do next? First, send a request of services to our office and include the name of the person to contact at your installation. Enclose an inventory of the unwanted radioactive material you want removed. The inventory should include at a minimum the following information: item description, NSN (National Stock Number) if appropriate quantity of each item, radionuclide, activity per item and total activity. Other nice-to-have information: how the material is stored, type of loading facility; services you can offer in assisting the shipment e.g. forklift with driver, blockers/bracers, copier, telephone, etc.; unusual weights or sizes of items; and contamination concentrations.

There are reasons to provide as much information as possible when setting up the shipment. For example, take electron tubes. Electron tubes come in a variety of sizes, from as small as 1 inch tall to as large as 24 inches tall, and they may be fat or skinny. So, we like to know the dimensions of the tubes to determine the type/ size and number of containers required for packaging.

If you have items like Chemical Agent Detectors that are tracked, make sure you include the detector and cell module serial number on the inventory form.

For liquids give the rad data and the volume, type of liquid, type of container, and how and where it's stored. If you have scintillation fluid say if its hazardous or not and if its toluene or xylene. If the 90-day clock is running be sure to give the drop dead date to get the container off post. Give percentages of water, if present. If the liquid is non-hazardous we can usually solidify and bury it. If its a mixed waste you must complete a waste profile form for the mixed waste disposal facility.

Be careful with batteries. The Resource Conservation Restoration Act (RCRA) considers many batteries a hazardous waste that you cannot bury at a radioactive waste disposal site. So, remove batteries from devices before submitting for disposal.

Another good idea is to segregate tritium and radium compasses. To distinguish between a tritium and radium compass just place a radiation detection meter up to the compass. If you get a reading it is ra-

(Continued on page 7)

(**GAO Report** *continued from page 3)*
erect administrative barriers to new disposal facilities within their borders."

Make DOE Responsible for Disposing of Commercial Waste

"This approach is supported by those who believe that states governments would successfully frustrate attempts to develop new disposal facilities under the compact and free market approaches discussed above. They also point to the relatively small volume that would be added to DOE's waste disposal operations."

"Two of DOE's six disposal facilities for low-level radioactive wastes--facilities that are located on the Hanford site and the Nevada Test Site--currently accept low-level radioactive wastes from other DOE facilities. Both facilities have large unused capacities. Both of these disposal facilities are also capable of disposing of mixed low-level wastes. Moreover, disposal capabilities can be expanded at both locations. It is clear, therefore, that these two disposal facilities have the capacity to accept commercial low-level radioactive wastes in addition to DOE[1]s own wastes. Also, there is precedent for making DOE responsible for disposing of commercial radioactive wastes."

"There are, however, drawbacks associated with this approach. In particular, there does not appear to be any incentive for the most likely affected states--Nevada and Washington--to accept this approach."

"In general, these states have been opposed to the disposal of wastes from other DOE nuclear facilities and can be expected to oppose the disposal of commercially generated low-level radioactive wastes at these sites."

"Moreover, having DOE dispose of commercially generated low-level radioactive wastes could adversely affect the Department's negotiations with states and other interested parties on acceptable solutions to cleanup problems throughout DOE's complex of nuclear facilities."

"Assigning DOE the responsibility for disposing of commercially generated low-level radioactive wastes would impose and additional burden on a federal Department that has often been criticized by states and other interested parties for what they have characterized as its poor performance in cleaning up its complex of nuclear facilities. And finally, DOE self-regulates its own disposal operations, whereas either NRC or an agreement state regulates the disposal of commercially generated low-level radioactive wastes: Resolving questions about the responsibility for the regulation of waste disposal operations would, therefore, be essential to any effort to assign DOE the responsibility for disposing of commercially generated wastes."

(**ARMY Training** *continued from page 1)*
them for shipment, you will need this course.

This is a challenging course. The first thing you learn is how expensive the fines can be for improper shipments and you may be held liable. Why did I volunteer for this you ask yourself? However, it is good to know that by the time you graduate from this course you should not be making any mistakes. You learn what hazardous material is, and how to identify it using a Material Safety Data Sheet (MSDS), the Joint Hazard Classification System (ammo) and Title 49 Code of Federal Regulations. You work your way through ground transportation (truck and rail). Next, vessel and the stowage requirements unique to ships. Then to air shipments, commercial and military. Each different section has its own rules and regulations.

Tests? Well, you have four tests and you must make at least 75% on all parts/tests. The attrition rate varies but seemed to be about 10%. The instructors are extremely helpful and knowledgeable. There is a lot of experience among those instructors. You meet your counterparts from other posts and you learn what goes into a unit move or deployment from the shipping end. All and all it is time well spent and you pick up valuable and vital information.

Great, the two weeks are over and you have better than 75% on all your tests. You graduate. Yeah!! Do not get too happy—you have to re-certify every two years. You can attend the one-week "here's the material, got it, here is the test" version, or take the two-week course again. If you do not make many shipments, I would suggest, taking the two-week course.

Hope you found this informative. I will be back in two years getting more Army training. If you have any questions about this course, you can contact Ms. R. Christian at DSN: 737-7607. Got to run, shipments to certify. Later.

(**Unwanted** *continued from page 6)*
dium, if not it is tritium.

Remember the more information you provide about your excessed radioactive materials the better planning we can do for safe, legal, and cost-effective removal and disposition. For more information contact Judy Woodson at DSN 793-1886, or (309) 782-1886, email WoodsonJ@ioc.army.mil.

DEPARTMENT OF ARMY
AMSIO-SF
Headquarters, Industrial Operations Command
Rock Island Arsenal
Rock Island, IL 61299-6000
OFFICIAL BUSINESS

Mailing
Address
Goes
Here

SERVICE AND AGENCY POINTS OF CONTACT

Air Force:	CAPT Maridee Cornell (210) 536-3489 Det 1, HSC/DEB2 (AFRMWO) Brooks AFB, Texas 78235	**USACE:**	Mr. Richard Wright, Jr. (202) 761-8565 Corps of Engineers CEMP-RT, 20 Massachusetts Ave, NW Washington, DC 20314
Navy:	Mrs. Laurie Lowman (757) 887-4692, % Naval Sea Systems Command Detachment, Radiological Affairs Support Office Yorktown, VA 23691-0260	**DLA:**	Mr. Mike Coogen, DLA-OWP (703) 767-6231/6300 Defense Logistics Agency Ft. Belvoir, VA 22060-6221

Army: You can reach us at HQ, IOC, AMSIO-SF, Rock Island Arsenal, IL 61299-6000 or via EMAIL at:
conleyr@ioc.army.mil - 309-782-0171 or DSN 793-0171
or the WORLD WIDE WEB at http://www.ioc.army.mil/dm/DMWWEB/indexdmw.htm

***the* RAD WASTE NEWS**

Richard D. Conley, Editor